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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARK J. STEFIK, STUART K. CARD, ED H. CHI, LICHAN HONG, and BARBARA STEFIK

Appeal 2015-001222 Application 11/495,426¹ Technology Center 3600

Before MICHAEL W. KIM, PHILIP J. HOFFMANN, and ROBERT J. SILVERMAN, *Administrative Patent Judges*.

SILVERMAN, Administrative Patent Judge.

DECISION ON APPEAL

STATEMENT OF THE CASE

The Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 1–7, 9–19, and 21–31. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ According to the Appellants, the real party in interest is Palo Alto Research Center Incorporated. Appeal Br. 2.

ILLUSTRATIVE CLAIM

1. A method for creating and using context-aware guides comprising:

displaying, by a computer, a visible content portion from a corpus in a reading pane to a user;

deriving user interest information from the visible content portion;

determining a set of index items from the corpus;

determining a set of guide elements for the corpus that correspond to information items from a content portion that includes the visible content portion;

comparing an index item from the corpus to the user interest information to determine an item of interest based on a degree of semantic overlap with the user interest information, wherein the item of interest corresponds to a guide element from the set of guide elements;

displaying the item of interest with an indicator indicating that the item of interest is interesting; and

displaying the set of guide elements in a guide pane.

REJECTIONS

- I. Claims 1–7, 9–19, and 21–31 are rejected under 35 U.S.C. § 101 as ineligible subject matter.²
- II. Claims 1–7, 9–19, and 21–29 are rejected under 35 U.S.C. § 103(a) as unpatentable over Sotomayor (US 5,708,825, iss. Jan. 13, 1998) and Krause et al. (US 6,154,757, iss. Nov. 28, 2000) ("Krause").
- III. Claims 30 and 31 are rejected under 35 U.S.C. § 103(a) as unpatentable over Sotomayor, Krause, and Gifford et al. (US 2007/0118526 A1, pub. May 24, 2007).

² The rejection under 35 U.S.C. § 101 was introduced in the Answer as a new ground of rejection. Answer 2–6.

FINDINGS OF FACT

We rely upon and adopt the Examiner's findings stated in the Final Office Action at pages 2–11 and the Answer at pages 6–8, except as stated otherwise in the Analysis below. Additional findings of fact may appear in the Analysis below.

ANALYSIS

Rejection Under 35 U.S.C. § 101

The Appellants contend that the Examiner erred in rejecting claims 1–7, 9–19, and 21–31 under 35 U.S.C. § 101 as ineligible subject matter, because the claimed subject matter is not directed to an abstract idea and — notwithstanding any such determination to the contrary — the claimed subject matter is nevertheless patent-eligible because it improves an existing technological process. Reply Br. 7–8.

According to the Examiner, under the first step of the analytical approach of *Alice Corp. Pty. Ltd. v. CLS Bank International*, 134 S. Ct. 2347, 2355 (2014), claim 1 recites "a method of organizing human activities," which "includes an abstract idea." Answer 4. Under *Alice*'s second step, the Examiner determines that claim 1 does not amount to significantly more that the excluded abstract idea because the claim "requir[es] no more than a generic computer to perform generic computer functions" and the claimed features are "well-understood, routine and conventional activities previously known in the industry." *Id.* at 5.

In response, the Appellants argue:

The claimed invention includes subject matter that is concrete, because the claimed invention includes a computer that displays a document corpus in a reading pane for a user, and also improves the user's reading experience by using the guide pane to display relevant guide content that may be of interest to the user.

Reply Br. 7. In addition, the Appellants argue that, notwithstanding the dispute over whether the claims are directed to an abstract idea, the claimed invention is patent eligible because it "improves how readers read a document corpus." *Id.* at 8.

The Appellants' argument is persuasive. Although the Examiner finds that claim 1 amounts to "a method of organizing human activities" (Answer 4), the Examiner does not identify what "human activities" are purportedly being "organized" by claim 1. Moreover, the Examiner's finding that the steps of claim 1 must be performed by a computer (Answer 5 (the claimed steps "requir[e] no more than a generic computer to perform generic computer functions")) is at odds with the determination that claim 1 is "a method of organizing *human* activities" (id. at 4 (emphasis added)). Further, the Examiner's statement that "claim 1 includes an abstract idea" (id. (emphasis added)) injects uncertainty as to "whether the claims at issue are *directed to* [a] patent-ineligible concept[]," per *Alice*'s framework. Alice, 134 S. Ct. at 2355 (emphasis added). After all, "[a]t some level, 'all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." Id. at 2354 (citing Mayo Collaborative Servs. v. Prometheus Labs., Inc., 132 S. Ct. 1289, 1293-94 (2012)). Therefore, the Examiner has not established sufficiently that the claimed subject matter is directed to an abstract idea in accord with *Alice*.

Accordingly, the rejection of independent claim 1 (as well as its dependent claims 2–7, 9–19, 21–27, and 30) under 35 U.S.C. § 101 is not sustained. For the same or similar reasons, the rejection of independent

claims 28 and 29 (and dependent claim 31) under 35 U.S.C. § 101 is also not sustained.

Rejections Under 35 U.S.C. § 103(a)

Independent claims 1, 28, and 29 are argued as a group. Appeal Br. 22–30. Claim 1 is selected for analysis herein. *See* 37 C.F.R. § 41.37(c)(1)(iv).

The Appellants present two reasons for Examiner error in the rejection of claim 1.

First, the Appellants contend (Appeal Br. 23–28) that neither Sotomayor nor Krause discloses features of the following limitation:

comparing an index item from the corpus to the user interest information to determine an item of interest based on a degree of semantic overlap with the user interest information.

Specifically, the Appellants argue that the cited references do not teach the claimed "index item," "user interest information," and "comparing . . . based on a degree of semantic overlap."

Second, the Appellants contend that the proposed combination of Sotomayor and Krause would improperly change Krause's principle of operation. *Id.* at 29–30.

As explained below, with regard to each of these two reasons, the Appellants' arguments are unpersuasive. Accordingly, the rejection of claims 1, 28, and 29 — and of their dependent claims 2–7, 9–19, 21–27, 30, and 31, no separate arguments being presented on their behalf — under 35 U.S.C. § 103(a) is sustained.

1. The References Teach the Claimed Features

The Examiner finds that Krause teaches the identified claim features identified above. Final Action 3; *see also* Answer 6–8. Alternatively, the

Examiner finds that Sotomayor teaches the feature of "comparing . . . based on a degree of semantic overlap." Answer 8.

The Appellants argue that Krause compares a document to words in a wordlist and that a wordlist does not constitute the claimed "index item." Appeal Br. 25–26.

Further, the Appellants argue that Krause's wordlist is defined *by the author* of the document and, thus, Krause's technology does not employ the claimed "user interest information." *Id.* at 26; *see also* Reply Br. 9.

In addition, the Appellants argue that Krause compares words literally — i.e., based solely on how they are spelled — rather than "based on a degree of semantic overlap." Appeal Br. 26–27; *see also* Reply Br. 9–10. Thus, Krause's system may yield irrelevant search results — such as results concerning the "bark" of a tree, even where the meaning of what is being sought is the "bark" of a dog. Appeal Br. 27.

With regard to Sotomayor, the Appellants acknowledge that Sotomayor performs a semantic analysis of text to identify key topics and compiles the key topics into summary pages with various types of indexes, but the Appellants argue that Sotomayor does not perform a semantic analysis on the generated index and, therefore, Sotomayor does not teach the claimed "comparing an index item from the corpus to the user interest information to determine an item of interest based on a degree of semantic overlap with the user interest information." Appeal Br. 24; *see also* Reply Br. 11–12.

The Appellants' arguments are unpersuasive.

As to Krause, the Appellants have not shown error in the Examiner's findings that Krause teaches the claimed "index item" or "user interest information."

Although the Appellants contend that Krause's wordlist cannot be the claimed "index item," the Examiner has pointed to disclosure in Krause showing that the wordlist can be generated from the text. Final Action 3 (citing Krause, col. 7, ll. 25–29). This conforms to the Specification, which explains that "index items" may include entities, topics, themes, and topics extracted from the corpus. Spec. ¶ 23.

The Appellants assert that Krause requires a wordlist created by the author, such that Krause lacks the claimed "user interest information." *See* Appeal Br. 26; Reply Br. 9. Yet, the Examiner finds that Krause's user selects the text for processing, in relation to what the user is currently looking at. Answer 7 (citing Krause, col. 27, ll. 41–61). The identified disclosure of Krause conforms to the "user interest information" described in the Appellants' Specification, which states that "user interest information is determined by analyzing the document in the reading pane." Spec. ¶ 22; *see also* Spec. ¶ 27.

As to the claimed "comparing . . . based on a degree of semantic overlap," the Examiner finds that Krause's matching words of interest in a text to words of interest in an index is "based on a degree of semantic overlap," noting that the Specification identifies single words as semantic units. Answer 6, 7–8 (citing Spec. ¶¶ 55, 56). Yet, even though the Specification may regard a single word as a semantic unit, the mere matching of textually identical words does not amount to comparing their respective meanings, as required by the claimed "comparing . . . based on a

degree of semantic overlap." *See* Appeal Br. 21, 26–27. Therefore, the Appellants persuasively argue that the Examiner erred in finding that Krause teaches the claimed "based on a degree of semantic overlap."

However, the Appellants' argument regarding the Examiner's alternative position — i.e., that Sotomayor teaches making determinations "based on a degree of semantic overlap" — is not persuasive. Sotomayor (col. 3, 1l. 47–48) recognizes that "some words having identical spelling have quite different meanings"—the very problem that the Appellants contend to be a critical defect of the Krause reference (see Appeal Br. 26– 27; see also Reply Br. 9–10). Sotomayor (col. 3, 11. 43–50) solves this conundrum through its use of semantic analysis technology. The Appellants argue that Sotomayor must be limited to using semantic analysis to create an index, which is a particular application of the semantic analysis technology described in the reference itself. Reply Br. 11–12. Yet, a reference is evaluated for what it fairly teaches one of ordinary skill in the art — not only what it characterizes as its invention or the exact problem that it addresses. In re Lemelson, 397 F.2d 1006, 1009 (CCPA 1968) (citing In re Boe, 355) F.2d 961, 965 (1966)). After all, "familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle." KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 420 (2007). A person of ordinary skill in the art would have appreciated that Sotomayor teaches a technique for making a determination "based on a degree of semantic overlap," as claimed. Indeed, the Appellants concede that this is true: "Appellant respectfully submits that a person of ordinary skill in the art would understand that using semantics to determine interesting items for a

user can produce more relevant results than mere searching and matching." Reply Br. 12

2. Principle of Operation

As to the Appellants' second reason for Examiner error, the Appellants contend that Krause searches for words that are in the document author's pre-defined index (rather than the claimed "index items" that are "determin[ed]" "from the corpus" and comparing them to the "user interest information"), whereas Sotomayor discusses generating an index, such that combining Sotomayor and Krause would improperly change Krause's principle of operation. Appeal Br. 29–30; *see also* Reply Br. 12.

The Examiner's response is directed to the reliance upon Sotomayor for a different claim limitation ("displaying, by a computer, a visible content portion from a corpus in a reading pane to a user") and points out that Krause has no bearing on this limitation. Answer 8. In addition, the Examiner states that "[w]hether the index is created by the user or by the author is irrelevant" because "Krause merely references the index to determine related information that is of interest to the user." *Id*.

The response in the Examiner's Answer does not address the same issue that the Appellants raise, but the Appellants' argument is unpersuasive, nonetheless. The Appellants begin from the mistaken premise that Krause does not teach the claimed "index item" and that the combination with Sotomayor relies upon Sotomayor's disclosure of generating an index. *See* Reply Br. 12. As discussed above, the Appellants' argument that Krause fails to teach the "index item" is unpersuasive. In addition, the combination of references does not involve an index created by Sotomayor. *See* Final Action 3; *see also* Answer 8. As discussed above, the Examiner's

alternative combination relies upon Sotomayor's semantic analysis technology, but for the purpose of comparing the claimed "index item" to the "user interest information" (both of which are taught by Krause). Employing Sotomayor's semantic analysis technology in place of Krause's word-matching technique replaces one information searching approach for another, but does not violate Krause's principle of operation.

DECISION

We REVERSE the Examiner's decision rejecting claims 1–7, 9–19, and 21–31 under 35 U.S.C. § 101.

We AFFIRM the Examiner's decision rejecting claims 1–7, 9–19, and 21–31 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED